

HISTORY OF  
THE DEVELOPMENT OF THE DEPARTMENT OF DAIRY SCIENCE  
AT THE OHIO STATE UNIVERSITY  
1870-1970

The Department of Dairy Science, now a department consisting of 26 full-time faculty of the rank of instructor and above, combines and coordinates the three major functions of undergraduate and graduate teaching, research, and cooperative extension service related to the production phase of the dairy industry in Ohio.

Classroom teaching is conducted mainly on the Columbus campus although graduate research and some teaching is offered at the headquarters of the Ohio Agricultural Research and Development Center (OARDC) at Wooster. The graduate student enrollment has expanded to over 30, and more than double this number of undergraduates elect Dairy Science as a major subject. In addition to more than 20 undergraduate and graduate courses in the areas of animal genetics, nutrition, physiology and dairy herd management, special opportunities for graduate study are offered in cytogenetics, immunogenetics, population genetics (computer use), ruminant nutrition, lactational and reproductive physiology, animal endocrinology and herd management. Some of the offerings are given on an inter-departmental basis among the Departments of Animal Science, Dairy Science and Poultry Science. Herds of registered cattle, some of which have been cited for national leadership for excellence of performance, are maintained for teaching and research purposes.

Of the twelve research faculty (FTE's) conducting the extensive research program which is operated mainly with OARDC funds, half are located on the Columbus Campus. One outlying branch at Vickery supplies a dairy herd which is used for experimental purposes, and several of the herds of the Ohio Department of Mental Hygiene and Correction are also made available for research purposes.

The extension service program encompasses the entire state and is conducted by a staff of nine (six full-time equivalent) members with and through the assistance of the County Extension Agents in agriculture in all of the 88 counties. Three dairy industry Area Agents complement the efforts of the University-based specialists in about one-third of the counties where dairying is most heavily concentrated. Steps have been taken to expand this phase of the extension program to cover the entire state with seven area representatives. The extension program involves almost the entire group of commercial and specialized dairy farmers of the state and thousands of boys and girls through junior dairy project participation, especially those with 4-H projects. Dairy records on approximately 110,000 cows are computed and recorded by electronic methods to assist dairymen and the extension faculty in making decisions on herd management.

The following sequence of events depicts the developments leading up to the inception and operation of the Department of Dairy Science as it exists in 1969.

# TEACHING

- 1872 -- Professor N. S. Townsend, who had been a member of the original Board of Trustees of the Ohio Agricultural and Mechanical College and became Chairman of the Agriculture Department, incorporated "Dairy and Its Products" as a portion of a course in the Agricultural Department of the Ohio Agricultural and Mechanical College. In 1876 "Dairy Management" was offered as a second year course.
- 1893 -- Professor T. F. Hunt initiated a twice-weekly lecture course in "Dairy Farming", which after eight years was replaced by one entitled "Feeding, Breeding, Selecting Dairy Stock, Equipment and Management".
- 1902 -- Professor Charles S. Plumb, for whom Plumb Hall (built in 1924) was named, joined the faculty, organized and became Chairman of a new Animal Husbandry Department within the newly designated College of Agriculture. An \$80,000 livestock barn and pavilion were constructed on Neil Avenue in 1907. By 1908, Professor Plumb and Dr. Carl W. Gay were offering courses in "Principles of Breeding" and "Principles of Feeding".
- 1906 -- Within a separate "Department of Dairying" (which became the Department of Dairy Technology in 1929) Dr. E. S. Guthrie conducted extension work with dairy farmers and creameries.
- 1907 -- Professor Oscar Erf joined the department and initiated courses in "Principles of Dairying" and "Dairy Farming".
- 1915 -- Professor S. M. Salisbury joined the Animal Husbandry Department. He and Professor Clifford Conklin added several dairy production courses in the twenties.
- 1946 -- A separate "Dairy Husbandry Department" was established and Dr. W. E. Krauss was named Chairman with joint responsibilities for the Department of Dairy Industry at the Ohio Agricultural Experiment Station at Wooster.
- 1948 -- Dr. Fordyce Ely was named Chairman of a newly named "Department of Dairy Science", with joint administrative responsibility for the department at Wooster.
- 1959 -- Plumb Hall, which has been occupied for 45 years by the Animal Husbandry Department and later by the combined Dairy Science and Animal Science Departments, was remodeled and renovated after which the Department of Dairy Science became its sole occupant. New laboratory facilities then became available.
- 1964 -- Dr. N. L. VanDemark became Chairman after Dr. Ely's retirement in 1963.

### DAIRY EXTENSION DEVELOPMENTS

- 1915 -- Professor Ivan McKellip developed dairy records programs and related extension activities throughout the state from 1915 to 1929 within the Department of Dairying. He was transferred to the Animal Husbandry Department in 1929. Meanwhile, Professor Salisbury, for a short period, conducted similar field activities from the Animal Husbandry Department base. He was followed by Professor Charles Blackman in 1924.
- 1940 -- Professor Blackman and Professor McKellip spear-headed the educational effort with the assistance of County Agricultural Agents to organize the entire state for an Artificial Insemination program for genetic improvement of dairy cattle. During the late 40's this service became available to all dairymen of Ohio through two farmer-owned cooperative groups. The extension staff had been increased to four to help accomplish this objective.
- 1959 -- The application of more science on the dairy farm reached a new high. Electronic data processing of dairy records was instigated in Ohio, the need for in-depth schools in nutrition, genetics and physiology for the commercial dairymen brought into focus the need for the employment of specialists with special scientific backgrounds and the area agent specialist concept for the dairy industry began to develop.

### RESEARCH DEVELOPMENTS

- 1910 -- The first department called "Dairying" was established at the Ohio Agricultural Experiment Station at Wooster with C. E. Thorne, the Station Director, as chief.
- 1911 -- A. E. Perkins joined the department as a chemist. He later made many noteworthy contributions related to protein needs and metabolism in dairy cattle.
- 1912 -- C. C. Hayden became the second chief of the Department of Dairying at Wooster. Along with C. F. Monroe and R. G. Washburn he later made many contributions to silage making.
- 1915 -- Hayden Hall (named after C. E. Hayden's death in 1959) was built. This building served as the office laboratory building for the department until Gerlaugh Hall was occupied in 1965.
- 1938 -- Dr. W. E. Krauss won the coveted Borden Award through the American Dairy Science Association for his research on dairy cattle nutrition and the values of milk in human nutrition. In 1952, Dr. J. W. Hibbs won this award for his research on calf nutrition and nutritional aspects of milk fever. Dr. N. L. VanDemark received this award in 1959 for his research related to reproductive physiology, and Dr. H. R. Conrad received the award in 1966, for his contributions in the field of ruminant nutrition. Dr's. Conrad and Hibbs each won the American Feed Manufacturers' award for their research in 1959 and 1962, respectively. In 1968, Dr. W. R. Harvey was awarded the Genetics Award by the American Society of Animal Science for his research in population genetics.

- 1941 -- Dr. W. E. Krauss served as Chairman until he became Associate Director of the Ohio Agricultural Experiment Station in 1947. In 1946-47 he took over responsibility for the newly formed joint department on both the Columbus and Wooster Campuses. Prior to the formation of the new department, Dr. T. S. Sutton and Dr. L. H. Burgwald conducted research on the Columbus Campus.
- 1948 -- Dr. Fordyce Ely was named Chairman of the Department. In the years that followed he helped to establish the joint Ohio-USDA dairy cattle breeding project, the blood antigen laboratory, cytogenetic studies and the Branch Station at Vickery was added.
- 1964 -- Dr. N. L. VanDemark became Chairman. Since then basic research in population genetics, cellular antigens, cytogenetics, reproductive physiology, and ruminant metabolism has been stepped up.